

A ROBUST, INTEGRATED DATA PLATFORM TO HELP IMPROVE INVESTMENT OUTCOMES

any institutional investors today recognize the imperative of managing and accessing data in a way that can support their investment decision-making and risk management. For global asset servicers, delivering interconnected and innovative solutions for institutional clients has put them at the forefront of the new technologies that are driving change in the industry. Pensions & Investments spoke with Rohan Singh, global head of asset owners at BNY Mellon, about the latest developments in data and connectivity that enable the firm to deliver an integrated platform across sophisticated investment strategies to asset owners. He shared how data and analytics is ingrained in the DNA of BNY Mellon - a leading global custodian and asset servicing provider - and how the firm's commitment to innovation and technology is helping asset owners prepare for the future.

Pensions & Investments: Data and connectivity have always been important for institutional investors. What has changed today?

ROHAN SINGH: Look at the current backdrop and the context. Institutional investors are responding to the ongoing low interest-rate environment, and they're having to seek higher risk-adjusted returns. Pension funds, endowments, foundations and sovereign wealth funds are all doing what we would call "right risking." This means they are taking on more risk and demanding more sophisticated investment approaches to deliver the investment outcomes they seek. These [investment strategies] are all adding complexity to the overall investment process and driving the need for greater operational integration between investment and risk decisions. This is driving the need for data and connectivity in asset servicing.

Given this backdrop, the number one priority for asset owners is ensuring a robust reconciliation process across different technological systems so that they have accurate positions to begin trading.

P&I: Are asset managers and owners using data differently than they did in the past?

SINGH: On the front-office side, portfolio construction is more intertwined with trading. The connectivity of data from front office to back office is also developing quickly. As an example, connections between custody positions for trading with order management systems is key to driving investment efficiency, and it is an area that BNY Mellon initially focused on as it developed its open architecture strategy.

Also, the adoption of APIs [application programming interfaces] is increasing. APIs are able to deliver speed and efficiency. Going back to my earlier comment, in terms of using that data to drive higher risk-adjusted returns, managers need to use data in a way that not only gives them risk exposures, but also provides them with new insights. These insights can help them respond much faster to opportunities, increase the efficiency of settlement mechanisms, and maximize the effectiveness of different counterparties, so they can reduce operational friction and execute with speed.

Other key changes are the risk tilts into new asset classes and geographies, such as multi-asset mandates, emerging markets exposure and alternative assets (private equity, hedge funds). This requires investment operations teams to have a consolidated view of positions and security details, or a security master, for the important areas of both trading and exposure management. This is challenging for asset owners as they seek to move from spreadsheets to warehouses to software and utilize the cloud — our role is to increasingly share our insights and expertise across what we see and help clients on this complex data journey.

P&I: How did the digital transformation

keep markets functioning well during the early days of the COVID-19 crisis?

SINGH: The pandemic was clearly a great source of innovation. Our clients were getting information [from us] that allowed them to keep markets functioning and efficient. We were also able to provide real-time insights and transparency and, importantly, exception-based monitoring [monitoring of errors in applications]. These insights allowed institutions to focus on core accounting and custody processing and have accurate and near real-time intraday projections of security positions to inform their front-office decisions.

P&I: How does BNY Mellon's role as one of the world's largest custodian banks give it a unique position when it comes to data?

SINGH: The bigger the custodian, the greater the information, insight and value delivered. We see ourselves as much a data fintech [financial technology company] as we are an asset servicer through our data and analytics capabilities.

We provide custody, accounting and performance data for ingestion by our clients. We have a unique perspective that can help a client improve their workflow, since we can see the different elements of the data that they are ingesting.

One example is our ability to create insight on predictive distribution analytics. We are taking advantage of machine learning to help asset managers better understand predictive market-demand drivers and sales momentum so they can gauge how to successfully gain market share. That's an example of how, given the amount of transfer agency data we sit on, we're able to create insights for our clients that allows them to power their business better.

When it comes to environmental, social and governance investing, which has all these dif-

ferent vendors and ratings and lacks a standard methodology, we believe that the "wisdom of crowds" concept can play a strong role. We focus on crowdsourcing sentiment, that is, putting all that data with feedback in one place so we can provide our clients the consensus view of their peers.

P&I: What investments did BNY Mellon undertake for its digital transformation?

SINGH: BNY Mellon has been on a digital transformation journey for a while. One of the biggest moves was bringing our asset servicing business together with our enterprise digital function to improve and accelerate client information delivery, transform client oversight and transparency, and proactively deliver additional insights to clients.

The other key investment has been our open-architecture strategy and platform, BNY Mellon OMNISM, which brings together the best of our capabilities in services, data and analytics combined with the best of what the industry has to offer. There's an ecosystem of specialist providers. So, we said, 'Let's curate that ecosystem by forging alliances. We can be the curator because we have the custody data, which drives all applications,

and the platform on which to integrate them.

P&I: Some new data analytics solutions — artificial intelligence (AI), robot-to-robot programs — sound like they belong in science fiction. Are these new digital technologies and products helping clients?

SINGH: Al is only as good as the data it's based on. If you have incorrect, poor or missing data, then your Al will create spurious or incorrect correlations, and it will fail to deliver the outcomes you need. We work very closely with clients first to get the fundamentals right. Once the data is correct, you can see a massive improvement in customer experiences. We use bots, for example, in some of our fund-accounting operations today. So, it's not science fiction. These digital technologies are helping us and helping our clients.

P&I: What's next for data usage and availability, and how will it impact asset owners?

SINGH: Data usage is increasing exponentially year on year. And that's driven by the applications that require the huge amount of data, Al being a key example. The winners will be the firms that have bet on this space. We have invested in our data vault capabilities

because we believe that underlying data platforms are going to be key from a data usage perspective. The data vault acts as an integrator that can manage both structured and unstructured data sets.

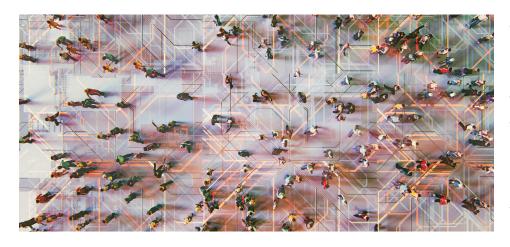
The other area is forward-looking tools, such as risk monitoring to predict investment breaches. Any type of technology that allows for forward-looking rather than just backward-looking analytics is going to be key. It will be very costly for firms to develop the inhouse infrastructure and data platforms such as our data vault, and at scale.

Any innovation can be seen as a risk, but the reality may well be the opposite. Self-driving cars are a good example. How they drive is based on a huge amount of data that's being collected about their surrounding environment. Similarly, for us, the more data, the more accurate the outcome.

P&I: How are you sharing these insights with clients and alerting them to what's ahead?

SINGH: On September 14, we launched both the Sovereign Academy and Asset Owner Academy across two regions (The Americas and Europe) to bring these insights to our pension fund, central bank and sovereign wealth fund clients across the globe. We anchored the Academy in what we call 'operational alpha,' which is how clients can use data to drive operational efficiencies by connecting different systems, leading to improved speed and workflow. Ultimately, this will drive a better investment outcome.

What we emphasize with our clients is the people equation. When you look to the future, portfolio managers might be data scientists or data scientists might be portfolio managers. Secondly, everything in our industry might have an audit chain through blockchain technology that acts as a data store, which is immutable.



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